

AMERICAN TELEPHONE AND TELEGRAPH COMPANY

BELL SYSTEM PRACTICES  
Teletypewriter and Manual  
Telegraph Station and PBX  
Installation and Maintenance

SECTION P30.922  
Issue A, 7-1-47  
Long Lines Department  
Dist. Class. 400AC & 600AC

TELETYPEWRITER STATIONS

INFORMATION ON POWER REQUIREMENTS

1. GENERAL

1.01 This section contains information concerning power requirements as related to the installation of teletypewriter apparatus at customers' premises.

1.02 This information is prepared in the form of notes which may be conveniently furnished to the customer for his assistance in providing power arrangements. Copies of the notes are not available separately and, when desired, the complete section should be ordered.

1.03 The Commercial Department will normally furnish sufficient copies of the attached notes to the Principal for distribution to the customers involved prior to the start of service under the following conditions:

- a. When a new service is started
- b. When new drops are added to existing services
- c. When more apparatus is added to existing drops
- d. When existing apparatus is moved to a new location (if required).

1.04 Where power wiring has to be run and the customer objects to providing it, the matter should be taken up through regular channels before proceeding with any further work.

2. REFERENCES

2.01 For information on the installation of teletypewriter apparatus refer to Bell System Practices Section P15.001.

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STATIONS INFORMATION ON POWER  
REQUIREMENTS

2.02 For information on power supply for teletypewriter apparatus refer to Bell System Practices Section P30.019 and for information on Time Switches refer to Bell System Practices Section P31.601.

2.03 For information on Power Drains and Power Factor Correction refer to Bell System Practices Section AB84.124.

### 3. MISCELLANEOUS

3.01 Where an installation involves more than two receiving only or keyboard sending teletypewriter sets or more than one automatic send and receive teletypewriter set, or where rearrangements are made in existing teletypewriter installations, or where they are increased in size by the addition of more equipment, it will be the responsibility of the Telephone Company Plant representative to ascertain that the power fusing, wiring, etc., is satisfactory (see Item 1.04).

## NOTES ON INSTALLATION OF TIME SWITCHES

### TELETYPEWRITER STATIONS

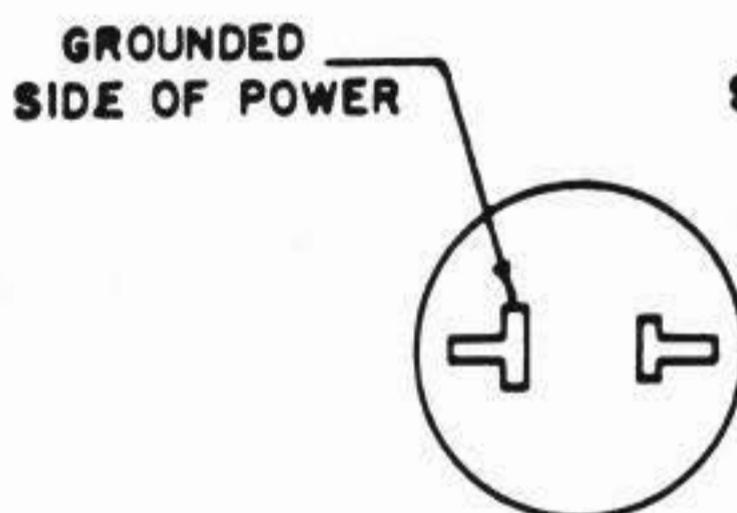
1. The tariff regulations, under which private line service is furnished, state that the customer is required to furnish the power necessary to operate the teletypewriter equipment. This requires the customer to furnish and maintain the necessary power wiring and outlet at the place where the equipment, including time switches, is to be installed.
2. The Telephone Company is responsible for mounting the time switch.
3. The time switch must be mounted on a wall or pillar so constructed that it will not subject the time switch to vibration.
4. All power wiring to the time switch and from the time switch to its associated receptacle or the teletypewriter set shall be in conduit or BX cable. When a regular and spare teletypewriter are provided, one time switch should be employed to control both sets.
5. A hand operated double pole disconnect switch of a voltage and current rating equivalent to that of the time switch, shall be installed in the line side of the power to the time switch. This switch is provided to disconnect all power when performing maintenance work on the time switch.
6. Details of wiring connections to the time switch and disconnect switch will be furnished by the Telephone Company Plant representative.

NOTES ON INSTALLATION OF POWER OUTLETS  
AND ASSOCIATED WIRING

TELETYPEWRITER STATIONS

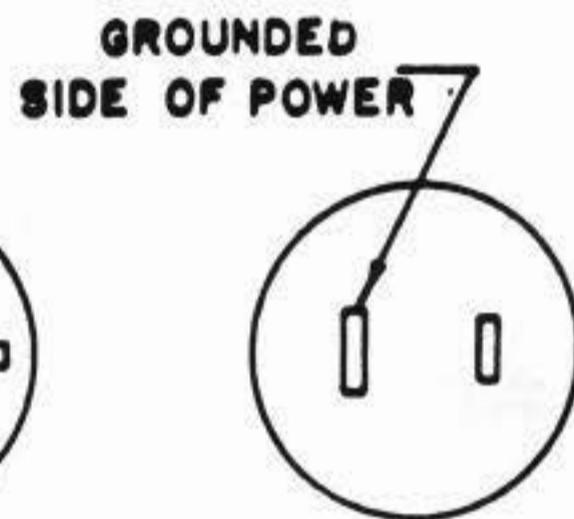
1. The tariff regulations, under which private line service is furnished, state that the customer is required to furnish the power necessary to operate the teletypewriter equipment. This requires the customer to furnish and maintain the necessary power wiring and outlet at the place where the equipment is to be installed.
2. A steady power supply of 110-120 volts is required. If there is a choice available, 50 cycle regulated AC power is preferred. However, 60 cycle non-regulated, 25 or 50 cycle AC, or DC are also suitable. In the event the available power does not come within these limits the matter should be discussed with the Telephone Company Plant representative.
3. The reception of correctly printed copy depends considerably upon the synchronization of motor speeds between the local teletypewriter apparatus and the distant apparatus. Therefore, to avoid fluctuations of the power supply, as well as to minimize interruptions, it is necessary that the power be taken from a separately fused source of supply which is not used to furnish power to other types of apparatus such as wall fans, room lights, air conditioning apparatus, etc. It is also essential that spare outlets shall not be available on the same source which could be employed by a janitor or other workman to obtain power for some other use.
4. The power circuit or circuits and accessories shall be permanently installed in accordance with the National Electrical Code and any local regulations which may apply.

5. The required fusing and size of the wire of the power circuit will depend upon the number and type of units to be installed. In general, when one or two receiving-only or keyboard sending teletypewriter sets, or one automatic send and receive teletypewriter set are involved, a standard branch circuit using 14 gauge wire and 15 ampere fusing will be satisfactory. However, when additional sets are to be installed or if more than the one or two sets mentioned above are involved, the matter should be discussed in detail with the Telephone Company Plant representative who can furnish power consumption data and power factor correction information.
6. The types of power receptacles providing either polarized or non-polarized arrangements now extensively used are satisfactory for teletypewriter apparatus. However, the polarized types shown in Figures 1 and 2 are preferred.



2-WIRE  
UNIVERSAL  
POLARIZED

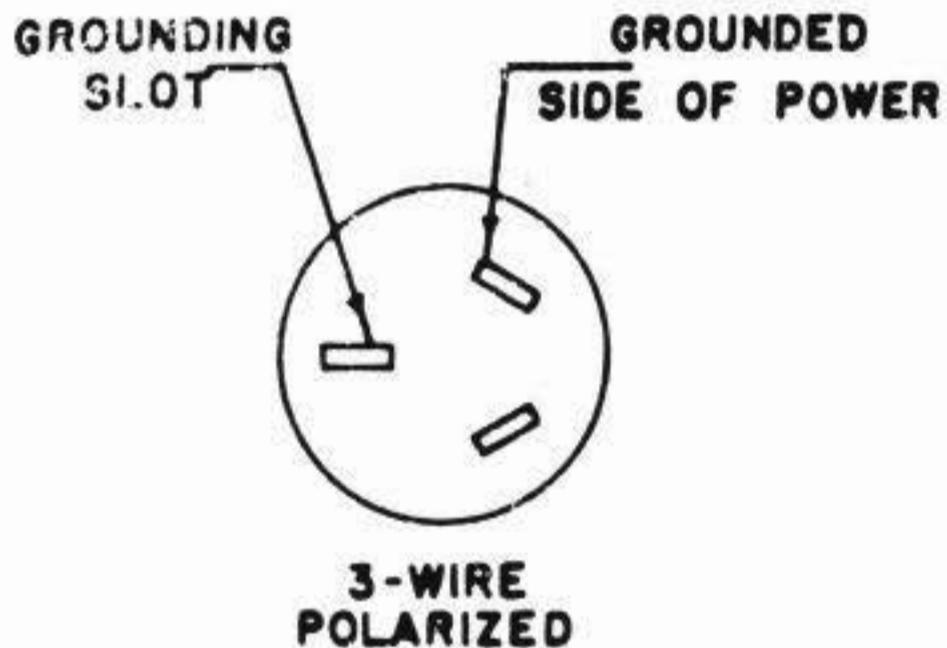
FIG. 1



2-WIRE  
PARALLEL  
POLARIZED

FIG. 2

In some instances local rules require a third wire for protective ground in which case a 3-wire receptacle, Figure 3, is used. This type receptacle may also be used when ground is desired for various other purposes, for instance in connection with radio interference filters, provided the grounding slot is connected to grounded BX or conduit.



**FIG. 3**

7. It is essential that the grounded side of the power circuit be connected to the proper terminal of the receptacle.
8. In order to avoid unintentional interruption of power to the teletypewriter apparatus the receptacle shall not be controlled by a hand operated switch.
9. The receptacle shall be so located that:
  - A. It may be reached by a cord of a maximum length of 8 feet external to the teletypewriter table.

- B. The teletypewriter apparatus will not be installed near windows, which if inadvertently left open, may cause possible injury to the apparatus due to inclement weather.
  - C. The teletypewriter will not be installed near a radiator which, during heating season, may cause the apparatus to be injured due to overheating.
  - D. When a teletypewriter set is connected to it with a flexible cord, the cord will not extend across a passageway and will not be in such a position that may be walked on.
10. The receptacle must be in satisfactory condition.